GOVERNOR'S ENERGY POLICY TASK FORCE
MEETING MINUTES

FEBRUARY 15, 2001

IOWA UTILITIES BOARD HEARING ROOM
350 MAPLE STREET
DES MOINES, IOWA

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MEETING MINUTES

This Governor's Energy Policy Task Force meeting was called to order by Chairs Dave Hurd and Lee Clancey at 12:00 p.m. on Thursday, February 15, 2001, at the Iowa Utilities Board, 350 Maple Street, Des Moines, Iowa.

MEMBERS PRESENT	MEMBERS ABSENT
David Hurd	**Brenda Dryer**
Lee Clancey	
George VanDamme	
Roger Amhof	
Joyce Mercier	
Howard Shapiro	
Lana Ross	
Don Wiley	
Lisa Davis-Cook	
Lee Kohl for Sandy Opstvedt	
John Sellers	
Kent McLaughlin	
Kevin Eekhoff	

Bill Leighty, Director
The Leighty Foundation

David Hurd:
We are privileged to have Bill Leighty with us this morning. He is going to tell us about a new report titled Repowering the Midwest. He will also give an update on some presentations to the Alaska Legislature about natural gas that would be of interest to us.

Bill Leighty:
I grew up in Waterloo. Fifteen years ago, my father founded a charitable family foundation. We have funded over the last 10 years a number of non-profit organizations dealing with energy policy, sustainability, and renewable source energy. This includes the Union of Concerned Scientists, Iowa Renewable Energy Association, and the Environmental Law and Policy Center. A couple of years ago the Environmental Law and Policy Center began a major study called Repowering the Midwest which really builds on a study done back in 1993 done by the Union of Concerned Scientists and others called Powering the Midwest. It was the first time they tried to do an assessment of what renewable energy resources are in the Midwest area. Yesterday, was the national release of Repowering the Midwest and a press conference was held in the Capitol. Some of you probably have seen the article in the Des Moines Register today.

The materials are on the web site www.repowermidwest.org. I can make each of you a CD-ROM if you would like to take that with you. The complete report is about 130 pages. The executive summary is in your folder. For large scale distribution is a state specific sheet. You will see the Iowa sheet there. Repowering the Midwest focuses on the electric industry only. It looks through the year 2020. It emphasizes two contrasting scenarios, business as usual and what we call the clean power path, which requires significant investment in energy efficiency and new renewable resources for generation.

This is a 50s era smokestack from a coal burning plant. What is coming out there is mostly water vapor and carbon dioxide. It represents about 2/3 of the energy value of the fuel going up the stack. We can do better than that. We have to do better than that. You will see that in the clean power path that there is still a heavy reliance on natural gas but using it in a more efficient way so that we capture what is now waste heat. We can't afford to waste 2/3 of the energy value of our fossils fuels or any other fuel source. But we can use fuel cells, combined heat & power and district energy systems. Repowering the Midwest is a clean energy blueprint promoting both energy efficiency and renewables, comparing the two scenarios and recommending necessary policy change. That is where you folks come in.

This is the business as usual scenario. You can see this is for the whole Midwest region. There is a breakout by state, which you can begin to see on figure one of your state specific sheet. It looks quite different because that is what it would look like for the state of Iowa. Midwest-wide total electricity energy consumption goes up over the horizon year 2020. Coal increases slightly. The nuclear envelope will not change much because nobody has ordered a nuclear plant today. If they did it would not be on-line for 20 years. There will be a loss of some nuclear generating capacity. That is the same envelope for both scenarios. This is new natural gas fired electricity generation. The consequences would be that there would be some health and environmental effects from burning more fossil fuels, especially more coal. There will be regulatory compliance costs. The NO_X rules that are coming down the pike and when we begin to deal with the CO_2 emissions problem, call it carbon taxes, carbon offset credits, some sort of mechanism for internalizing those external costs, there will be regulatory costs. The clean energy development path has a huge potential for energy efficiency. The Rocky Mountain Institute once estimated that 2/3 of the electric

energy generated in this country is wasted not only in transmission and distribution but inefficient appliances. There is huge potential for renewable resources, improving the environment, and bringing the jobs home at a minimal net increase in the cost of energy. We in America today know the price of everything and the cost of nothing because the external costs don't appear in our prices. This is the clean power path. Total electric energy consumption is flat or even declines over the horizon of 2020 because of energy efficiency. There is more economic activity but we use less electric energy. Nuclear envelope is the same. More renewables, these are genuine solar power, wind, biomass and photovoltaic. We are still relying on natural gas but we use it in a more efficient way by combining power, district energy and fuel cells so we can capture the by product--heating. We do need to retire some of the older coal plants and fewer new gas plants are needed. By 2010 8% of our generation and by 2020 22% of our generation will be from new renewables.

Energy efficiency costs 2.4 cents per kWh on average. There is a whole spectrum of investments you can make for energy efficiency. Some will cost you very little, some will cost you more. There is plenty of opportunity to do so. Remember this is for the whole Midwest region. By the year 2020 we have invested $6 billion dollars in efficiency but the cumulative saving is about $12 billion. If you go to the full report, you can go to the footnotes to find the back up resources for the discounted cash flow model. Most of the economics are done by Synapse Energy Economics. If you go to their website and read the reports they have put out in the last five years you will see that they have dabbled in areas where confidence is required. I think they have brought confidence to bear on this study.

Efficiency in the heartland region comprises 10 states. This compares the clean power case to the business as usual. Iowa's demand goes down in the clean power case relative to the business as usual case due to the investments in efficiency.

Where do they come from? Residential lighting and water heating. Commercial-both lighting and space cooling. Industrial is lighting and space cooling also. There is room for debate here and many of you are going to want to see the details and where these numbers came from. These figures are in the footnotes. It is a big topic and we can't cover more than that at this time.

There are economic benefits. Energy efficiency is labor intensive, so there are job creation opportunities. There is a wind generator factory in Grand Forks, North Dakota making blades for the wind generators. So there are more jobs in that community than generated by the coal industry. We already have efficient appliance and other manufacturing companies located in the Midwest.

This is a cash crop. It is an interesting comparison to the farm-to-market road system we are so proud of in Iowa. If we had a comparable farm-to-market road system for renewable energy resources, we could be a net energy exporter. If you will look carefully at figure 1 on your state specific sheet for Iowa you will see that the total electric energy demand curve is below the total energy generated curve. This implies that Iowa is a net exporter of energy. That we are producing more wind, biomass and other renewables sources in the state than we can consume in the state therefore, we can export some. There is still some coal generation which may be indigenous coal or imported from the west. There is room for debate and discussion. It is always dangerous to simplify into one single diagram but the concept is clear.

The area of North Dakota stretching down into northwest Iowa is the Saudi Arabia of wind. How much potential is there? We are always constrained by transmission in even exploring the question of how much wind energy could we generate and what could we do with it. We cannot run everything off wind due to its being an intermittent resource. It was estimated in the Powering

the Midwest report done in 1993, that if you were willing to pay up to 6 cents per kWh for energy generated from the wind we could generate the energy equal to 450 nuclear power plants. That is a lot of export potential. You don't need that much energy in Iowa. The numbers are huge but we don't have the farm-to-market road system to deliver it yet.

This is what the solar resource looks like for the region. Photovoltaic is a bit more expensive but will eventually have the bigger share of the market.

Renewable energy has several components. If we make wise investments, by 2010 we can have 8% of our total electric generation from renewables in the Midwest, 22% by the year 2020, replacing some of the new natural gas fired plants that we are expecting to have to build now. This would also give us less pollution and other health/environmental benefits.

What would the new renewables generation look like in Iowa? This slide shows wind, combined heat and power, biomass, district energy. Combined heat and district energy will probably be natural gas fired but we are going to harvest the waste heat and count that as part of our renewables capacity. You can see that these western states have a huge potential. All of it is pretty relative to North Dakota because we are closer to the markets. It will be less expensive for us to build a transmission delivery system here.

We have to use natural gas more efficiently. I can give a brief report on what the North American natural gas system is likely to look like. The Leighty Foundation funded a small study to examine the question; what if you wanted to put major wind generation in North Dakota, how would you deliver the energy? There are electric lines now but they are fully loaded. You would have to put in new electric transmission or would you even consider hydrogen transmission systems. This was a cost base study, but it showed that under certain circumstances; yes you might because now you have storage. You have 1,000 mile long, 2-meter diameter, tank to store hydrogen. That is your energy carrier and storage medium. Hydrogen is not an energy source. Don't let the public get the idea that they never have to worry about running out of oil and gas because we will always have hydrogen and fuel cells. A fuel cell is not an energy source. It is just an energy conversion device. Hydrogen is not an energy source, just a carrier.

The nuts and bolts of policy. We have people in the room that can explain this better than I. When it comes to detailed questions on energy policy ask them. We need a renewable portfolio standard in order to achieve these numbers. In order to achieve the transmission for the renewables generation we need the other incentives. You are familiar with these I think.

Someday we are going to have to deal with the carbon emissions. Carbon sequestration is the idea of removing carbon dioxide from our exhaust streams and sticking it in our ground. Norway has a $50/ton tax on carbon dioxide emissions. There is a natural gas rig offshore in Norway called Sniper Rig. They have found it economically attractive to withdraw the CO_2 from their natural gas, drill another hole in the ground and put it into a sandstone layer rather than pay the $50/ton emissions tax in Norway for their offshore rig. A number of countries have CO_2 emissions taxes. I think we will need them to deal with the climate change problem.

It is very important to the Environmental Law and Policy Center that we are sure that renewable resource energy and efficiency work hand in hand with economic development. That one does not operate contrary to the other. The technology exists today and it is improving all the time. We do need significant policy shifts and that is where you come in.

This is Alaska's North Slope of which thirty-five trillion cubic feet of natural gas is the bankable dollar amount. There may be as much as 100 trillion cubic feet. What does that mean? The

pipeline projects proposed now would deliver 4 billion cubic feet per day maximum. When you do the numbers, that is about 15-45 years worth of natural gas from the North Slope. The problem is delivery.

The other problem is that there are too many claims being made on this natural gas resource. These numbers are from the Energy Information Administration from the Department of Energy. This is the expected growth of natural gas demand just for electric power generation through the year 2020. If you add up these numbers, you get about 60 billion cubic feet per day. That is the natural gas consumption in the United States and Canada. If you add up these numbers, you get about 80 billion cubic feet per day. So that is 80 billion cubic feet in another 10 years. It is even higher than that in 20 years. Is the gas resource available on this continent? Possibly not. This is the oil line that goes down to Valdez. It would branch off here and come down this way to Caroline, in Alberta Canada. Beyond there, the branching comes to you folks into California in the pre-build phase of the ANGTS (Alaskan Natural Gas Transmission System). This was created by an Act of Congress in 1977 and 2 treaties between Canada and US with this joint implementation. These treaties are still in existence. Any attempt to deviate from them will require a lot of lawyer work and possibly even international relations. This pre-build phase was done in anticipation that when the price of gas was high enough the rest of the line would be built. That is exactly what is being contemplated in Alaska now. The consortium of the three principal owners of North Slope Gas which is BP, Exxon-Mobil and Phillips. The state owns a royalty share of 12.5% of the gas. These three companies have come together recently to form this consortium and they will be doing a feasibility study over the next year to determine whether it is economically attractive to consider building that expensive pipeline system. If the pipeline system is built it would be 2007 at the earliest before it is able to deliver to Caroline, Alberta hub and eventually down to Chicago passing through Iowa before you can benefit from it.

This is what is crossing the border now at various places. This is our import from Canada. If the demand for gas is going to be 80 billion cubic feet a day within 10 years, Alaska gas at 4 billion cubic feet per day is not going to be a big problem solver. The same as the Arctic National Wildlife Refuge is not going to solve the oil problem. There may be, with the current consumption rates in this country, 200 days worth of oil in the Arctic National Wildlife Refuge. You won't really know until you get in there, explore and start to produce and find out what is there. It is not the panacea that is going to make much difference in the oil situation. Alaska North Slope gas may not make a big difference in the gas situation in the lower 48 state.

David Hurd:
Anyone care to ask any questions of Bill?

Lee Kohl:
You talked about shared resources on natural gas and funneling off the heat. We can do that currently even on coal facilities that we have. Many European markets were built on a tradition in doing this. In this country we started with a tradition of doing it then we went away form it. You have looked at that possibility of just the energy efficiency that is available in shared resourcing.

Bill Leighty:
That is part of it. Every college used to have its own power plant. It generated the electricity and the steam from that heating the facility. That is a district energy system. We can't afford to put 2/3 of the energy up the chimney on these isolated proposals.

Just to finish up on carbon sequestration. It is possible to take the CO_2 out of the coal plant stack and stick it in the ground. It is expensive to do, therefore, the price of electric energy will go up. If we had higher price of electric energy and had had all along we would have made a lot more

investments in energy efficiency. We would have built our buildings better and put in better lighting fixtures. We would not be in quite the fix that we are in now. The former Secretary of Energy, Hazel O'Leary, after she left office said that energy in this country is too cheap, that is why we use so much of it. We need to get the price. Maybe that will take some tax shifting instead of increasing taxes but that is what you folks need to figure out.

George VanDamme:
I was in a meeting on Sunday, when you talk about raising prices; the folks in that meeting were ready to take over the oil companies to keep prices low. They were ready to revolt, literally.

Bill Lieghty:
Play out that scenario. Would that do any good? Would that keep the prices low? I don't think so. California, I think, has proven that supply and demand still works.

Lee Clancey:
Any other questions of comments for Bill? Thank you for taking the time to come and visit with us.

It was our hope that we would be able to have a little time inbetween this and the last meeting to meet with our subcommittee groups. As such we wanted to spend some time talking about what the subcommittees have come up with and if you have found any additional information that you wanted to share with the group. If there are any particular recommendations we need to think about. One comment I would like to make before we begin is that we have spent an enormous amount of time gathering information and absorbing an incredible amount of information. By virtue of the fact of what is happening right now. I attended one of Senator Harkin's town meetings on Sunday. There is a huge feeling among people that the system is falling apart; the bills are too high; and that there is a crisis right now. There may well be a crisis right now especially for those who have to choose between having a warm house and having food on the table. I am not saying this to down play how important this is, but as far as I can see, that is a short-term issue that can only be addressed by some long-term recommendations that we are charged with looking at. My hope is that as we look at the subcommittee reports and preliminary recommendations is that we take a longer view of where we are going policy-wise in this state. That we allow the Legislature to focus on the short-term fixes for those that are experiencing high heating bills this year. It is not until we get the long-term under control that we are going to be able to help those that need it the most. I know I am feeling the pressure to do something immediately but my gut feeling is that we need to be focused on the long-term. David, is there anything else you want to add?

David Hurd
First, I would like to enthusiastically second your comments. We are now in the phase of looking at long-range policy. We are past the point of talking about short-term recommendations for this year's Legislature. I am thinking that today is a chance for us to test out our ideas on some possible long-policy plans. After today's subcommittee reports, we could go back home and talk with one another on our subcommittee in order to form a few broad policy statements. I think by forming broad policy statements, which lack specific detail and how-to statements in them, we will then have our first level. Under each of those broad policy statements, we can start to add the points that explain what they are. I think if we start with broad policy statements and build them into more detail then keep assessing as we go along it will give us a form of organization. Then as we get the first layer of that done Lee and I could go to the Governor and show him what we have come up with. With his responses we could check as to whether we are going in the right direction. I don't think at this point we should be worrying about formal drafting of these policy statements. I think it is more important to reach for those broad ideas that we can agree on to form our basis for further studies. I think in our discussions today we will all come out with a little better feel of where we are going.

Lee Clancey:
Before we begin, I did hand out a copy of a press release from the January winter meeting of the U.S. Conference of Mayors. We did call for a 10% reduction in national energy use, with energy efficiency as the primary means of doing so. The mayors from across the nation have made that call. I thought the Task Force would all be interested in seeing the press release.

I think with that we will go on to the subcommittee reports.

David Hurd:
I think each of members of our subcommittees will speak. I am going to ask Howard Shapiro to start us off.

Howard Shapiro:
You will hear from other members of the Increasing Supply and Capacity subcommittee about some specific ideas relating to how we should deal with the capacity questions. What I want to talk about is a broad view of that capacity issue as it relates to aspects of what we are doing. Does Iowa really have a capacity crunch coming? The question in my mind is, as we have heard earlier, that by the year 2003 that we are going to be having rolling brownouts and blackouts. In my own mind I believe, that does not necessarily suggest that right now we should start to build new power plants to meet that perceived concern. I think we should start doing things now that would relate to reducing the need for new power plants. We have a 10 year history of public policy in this state that has focused in that direction and has resulted in, by the estimates of the Iowa Utilities Board and Department of Natural Resources, something like 700 megawatts of avoided demand. I am not sure, in my own mind, that we can not avoid a lot more than that in the future with some economic justification. The economics of building new plants versus economics of avoiding that through some of the things that a variety of our groups have looked at.

I am not ready to say that we need new power plants. I think there are other things that can be done for the next 5-10 to avoid that need. It is interesting that your Mayors' group came up with the 10% reduction idea because I think that is very close to what my thinking is at this time.

Another question on my mind is the transmission and distribution. That issue is more pressing from the things I have read and heard so far. Particularly as we think about wind and other sources, we will have transmission issues. From what I have gathered so far, I think we have some pressing issues in this regard right now. As far as whether it is feasible to set out a strategy that would allow us to rely on efficiency and renewable to meet the demand, I think our success to date proves that we can do some things like that. I am not advocating the exact kinds of policies that we had to make in order to make that happen. I think we had policies that attempted to do that. If you would like to look at some articles I have collected from various sources about the kind of things that could be done from an energy efficiency technological standpoint that would be cost effective and can be implemented with some policy help to prove that we can achieve this without new power plants. Some of the kind of things I am talking about are energy efficient lighting, heat pump technology, desiccant systems in commercial air conditioning systems. Those technologies are in existence. Those are choices that could be made, but there are a lot of public policies that we would have to promote in order to facilitate these kind of choices.

Can Iowa go it alone in energy production? I think, from the capacity standpoint, we should be thinking regionally. The California crisis is a problem involving the entire surrounding region. They are not able to go it alone. We are not able to go it alone. I don't think Iowa should make those decisions about generation without thinking about how do we interact with our neighbors. The

companies that serve Iowa are not just Iowa companies anymore. We have a very sound reason to be looking at these issues regionally.

I think future technologies pose other interesting questions here. In a sense we can use efficiency with existing technology that I believe is cost effective and we can move ahead while we buy time while some of these other technologies become available. Where will they serve us? Probably not in the base load part of our operation but in the marginal part. The marginal part turns out to be the place that we need very high reliability. If we are talking about computer systems, things that people are willing to pay a huge premium for to have very very reliable power, is where some of these technologies fit. There is no particular reason to make the entire system as reliable as would be needed to do that sort of job. In fact, it would not be cost effective to do that. While we buy some of that time, those other technologies may come in and as that particular need for high reliability power comes more prevalent in Iowa, those technologies could conceivably come in and do the job.

David Hurd:
George VanDamme, would you like to talk about incentives?

George VanDamme:
I will circulate this document. I tinkered with various things that related to generation and reliability. As a start, I was thinking of reliability as two things. One is adequacy. Adequacy is having adequate generation and transmission to supply the anticipated needs plus a modest contingency reserve for the long-term. Second is security. Security is a short-term issue relating to the integrity of the system that is remaining viable after an equipment failure. Equipment failures do happen. My thoughts are incentives and performance by both the investor-owned utilities and consumer-owned utilities that reside in Iowa and outside entities that want to delve into both the efficiency aspects to reduce demand. If utilities make investments on a customer's property to reduce their demand, can they capitalize that investment as they would a transmission or generation investment? They can't now but I can testify now that conservation does work but it has to be long-term things. The incentives to turn the thermostat down work until the hottest day, then the air conditioners do come on. That causes a peak. We need real conservation. Howard Shapiro and David Hurd talked about reliability. I think what they were talking about were reliability parks for distributed generation to augment high reliability systems. I think there is a need for incentives to use biomass. Distributed generation that can burn both coal and biomass mixtures but right now the utilities systems are designed to run pulverized coal. If you own an old stoker boiler, it is hard to adapt those systems to this newer fuel. We have tried to use biomass in our boilers and because of the air underneath it, wood chips blow up the stacks. These big burners need to be designed to run these fuels. It can be done. We just need to do it. Iowa State University Chemical Engineering Department has done some really great research on agricultural crops, using parts of it for energy and use the other parts for materials. John Deere uses soybean sheets for doors on combines. Iowa State has some great proposals. Maybe some state money, or encouragement, should be going there.

The transparent pricing for customers. Right now customers pay an average price. Some of them pay on peak or some pay off-peak and others pay seasonal. Price for electric service varies. Price of electric service can be as much as $1 or .50 cents per kWh. People pay an average price of maybe 10 cents per kWh. The decisions made in those 100 peak hours affect all the remaining 8660 hours in the year. A real time pricing schedule will help conservation because people pay for use. This is probably only practical for large use customers because I don't think residential customers are going to sit still for large swings in prices. You can make things payback if you are charged for what the actual costs are during those periods of time. You can make investments to shut off operations or do things differently. I do think incentives are the way to go. Incentives for

biomass and distributed generation would help. I also think having the investor-owned and consumer owned utilities publish where their weak spots are. I think Con-Edison did this in Illinois. We could use extra generation at this point and then if people put something in there or change their operations, pay them for it. We tried but failed in Wisconsin to give them an interruptible power rate, which gave them a credit for not having to add a transmission lines as well as generation. The utility company knew that in a year or two they would have to add a transmission line to serve the area but if they cut the load in the area, they would not need it. This was not a reasonable thing to approach the Wisconsin Public Service Commission with at that time. At least the utility company didn't think so. Reward customers that change their operation or generator.

Eliminate the barriers through transmission use. Make sure that the people that own the transmission system get paid the correct amount. Eliminate the market power of the transmission owners to determine where the electrons flow and how the pricing structure is. That will help wind turbines and biomass and distributed generation if they are connected to the grid. I just heard Tuesday in Chicago from an attorney and consultant that the Environmental Law and Policy Group is a real strong advocate of this so that we can move the power of the wind turbines in Iowa to the east.

Howard Shapiro:
This fits into your incentive ideas. I had asked Larry Bean from the DNR what kinds of legislation and things they are promoting. Sharon has copies in your folder of the 11 ideas. I am not advocating these ideas but if you look at them, they fit in with the general concept of trying to promote the reduction of the demand and more efficient use of energy. They are the kinds of public policies we might want to consider that would promote that type of pricing. That would promote that sort of thinking.

David Hurd:
Lisa would you like to touch on yours.

Lisa Davis-Cook:
Mine kind of coincide with a lot of what David Hurd had sent to our committee as well. I agree with what Howard Shapiro has said about the questions of before we build any new capacity we need to make sure we have done all of the things with energy efficiency that we can. Obviously, energy efficiency measures are going to be cheaper in the long run than building a new plant. My other idea, if we do get to the point where we have to add capacity, is making sure that we have diversified our capacity. That we are not just relying on one certain type of generation because I don't think that would be moving in a forward manner. We need to really look long-term to make sure we have diversified our capacity.

Our base load coal plants are there. We are going to have to use them. We can not just turn them off and move into another technology. I think that moving forward using the capacity that we already have, that we need to do the things that both Howard Shapiro and George VanDamme talked about with new clean coal technologies or co-firing aspects. We need to do something if we are going to continue to use these plants, to make them clean and more environmentally friendly. That capacity is there and we are going to have to use if for base load. I think it is important to do what we can to make it more environmentally friendly and viable resource for the future.

Lee Clancey:
I need to ask Bill Leighty a question. What was the term you used to describe what is happening in California right now? They are discussing the concept of using those old coal plants allowing them to operate but forcing them if they operate to reduce pollution elsewhere. You had term for that.

Bill Leighty:
I'm not sure we are talking about the same thing. Do you mean carbon offset credits?

Lee Clancey:
Yes, isn't that what it is? Is that the same?

Bill Leighty:
No.

Lee Clancey:
What is carbon offset credits then?

Bill Leighty:
That would be the transaction that would happen if a German utility company installed a wind turbine in Germany which was of value to a Canadian coal burning utility and they (the Canadian coal burning utility) bought from Germany the relative value of the carbon that was not emitted into earth's atmosphere because they (Germany) generated the power with the wind turbine instead of fossil fuel. That is a carbon offset credit.

Lee Clancey:
Thank you. What I read about was keeping these old coal burning plants going but requiring the owners of those plants to figure out another way to reduce pollution in the immediate area, for example, by buying electric buses for the municipality so that they could take the diesel ones out. I thought that was an interesting concept.

George VanDamme:
It is the same concept. Whether it is locally or globally, it is the same thing.

David Hurd:
I put a few points into our committee discussion. They are deliberately very general. The first is taking the position that we want enough generation within the state to take care of our needs. Lisa Davis-Cook's comment was about deliberate diversification among the varying kinds of technologies with emphasis on environmentally friendly sources. From reading the book on Micropower it was made apparent to me that being able to use micropower is in the very near future rather than just a distant possibility. I think we should have a recommendation on that. This would also pick up on the points of reliability. In order to get these things done we have to create policy that every player will see economic advantage in participating in this whether they are a consumer, developer or owner. We do not want to worsen our environment in going forward. I think that adequately summarizes the breadth of these points. Now we will listen to comments that others in the Task Force have. Our subcommittee will take all those comments and develop it into a 5 – 10 broad planks that we will then present for approval at the next meeting. The Increasing Supply and Capacity subcommittee has now made our comments and are open to your questions and comments.

John Sellers:
I agree with Lisa Davis-Cook that we need to be diversified. Regardless of what we say, coal plants will still be a major part of the mix no matter what. As far as some of the new things, I just encourage you to think about a total biomass plant rather than a co-fire. The co-fire may very well work for the other four or five plants that Alliant has in Iowa that could fit in with their wishes and projects but consider a total biomass generation plant. That technology exists and is being done successfully in Denmark right now. It is going to take a lot of money to retool some of these old

coal burning plants to get them to where they can co-fire to reduce the CO_2. You might want to take a look at a small 100 % biomass plant instead rather than trying to co-fire with an existing coal burning plant.

Lee Kohl:
I would like to ask George VanDamme a question. What impediments do you see when you look at distributive generation coming on for a facility that is looking for a reliability factor that is never going to be provided by the base load electrical system? What kind of incentives do you think would work?

George VanDamme:
Who would own the plant, the utility or private business? What fuel would you use? Fuel is the number one capital costs.

Lee Kohl:
How are you going to capitalize that cost?

George VanDamme:
How are you going to pay for it? What is the cost of adding small generating units? There are economies of scale for those. The big systems, Louisa and Neil Stations-if you are big the coal infrastructure is less costly to run than small ones. Smaller coal fired boilers will require specialized talent to run. You have to have trained operators. Gas fired boilers also take more people. You have both the people and capital cost for distributed generation either from a utility company point of view or a company point of view. A good location to do it for private business is in the northeast corner of Waterloo. They have a big cooling load and a sizeable heating and electrical load. A localized heating system. You can run an absorption chiller off the heat through either a gas turbine or boilers and supply electricity, chilled water and hot water to both sides.

Lee Kohl:
Because of the capital expense for something like that are you saying we need to create an incentive to be able to put that together?

George VanDamme:
Or tax credits for investments in conservation that do it or add capital facilities locally that defer needed assets for a utility company or someone else.

Lee Kohl:
When you talked about capitalizing investment for energy efficiency; is there any one region that is doing it?

George VanDamme:
I don't know. It would really be hard to control. You would have to work out the agreement with the sheet metal contractors and such. It would be OK to capitalize it but it would have to be open business for someone else to put it in due to fear of market power. I don't know of anyone that is doing it but it could be done.

Lee Kohl:
I have a couple of things that I would like to comment on regarding what Howard Shapiro said earlier. I agree with Howard that transmission and distribution are bigger concerns. I think it is one thing that people are missing in this big picture. How much generation you have is meaningless without transmission and distribution or dealing with the long-term. Our group is beginning to look

at that. Nationally it is a huge picture. I think there is a great deal of opportunity through energy efficiency and reduction. I also believe that shared resources and creating a shared resources environment where no matter where you are at generating electricity in one form or another you are dealing with a lot of energy loss in heat. You are also dealing with a whole lot of hot water. You have an opportunity to gain huge amounts of energy efficiency simply by capturing that energy and using it in the communities you are working in. However, without dredging up everything that is going on in the industry, I have to point out that there are people that came to the California table in 1995-96 and said we are going to have generation problems. They pointed out where those generation problems were going to occur. The utility companies said that the market in the available area would take care of that problem. I think it is important to look regionally at generation but I believe when you look at the regional picture, that Iowa's future is no brighter or dimmer than any of the other states in our region. The one thing that we have in our favor is our physical proximity. We have to take a view, long-term, as to what kind of role in this region we are going to play. I think that to err in this area is to err on the side of more generation than we need. I agree with Lisa Davis-Cook that we have to have a diverse fuel mix. It is just like investment. How can you go forward without a diverse fuel mix? At the same time, we have to recognize that the base of this business in Iowa is still coal and that the investment in a coal plant, in and of itself, is not just the plant itself. It is also its physical proximity to water, rail lines, transmission and distribution. These things will all go into the equation. A coal plant that you are deciding to retire within that physical area might be the exact area that you are looking to add on a new type of facility whether it be a gas fired or another type of clean coal. That investment is reduced simply by those facilities. You have to look at those facilities not only as they now exist, but also what their potential is for re-investment. How you can convert them to co-firing and use shared resources. It doesn't matter what kind of a facility it is, it is ultimately going to keep down capital costs in general. Look at the facilities here, when they are scheduled to be retired and what their longevity is. I would advise the Increasing Supply and Capacity subcommittee to take a close look at the generation infrastructure of the state of Iowa and region. Look at what is being brought on-line and why it is being brought on-line in the region. Facilities that are being brought on-line in Wisconsin are directly related to dealing with the problems of Wisconsin. Facilities that are being brought on-line in Illinois are looking to take advantage of market changes in that region. Those are two very different things entirely driving how those facilities come on line. I think it is important that we look at our facilities, where we are going with them and what it is we want to do. I think we need to prudently add generation.

Lee Clancey:
Do we know how many old plants that there are in the state of Iowa that are close to being retired and what it would take to bring them back on-line in a cleaner way?

David Hurd:
In the data that we have been given it doesn't say when they are scheduled to be retired but we have the age of the different facilities.

Lee Kohl:
One other thing I would like to point out with coal plants. The efficiency of those coal plants is directly related to the technology and age that goes into them. In certain parts of the East and out in California, because of environmental restrictions, some of those plants only operate at particular capacity level. We don't, for the most part, have that situation in Iowa. Our facilities don't have to deal with that. We cannot expect a bump from our facilities by any changes. It is going to take investment if you are going to have cleaner coal plants and someone is going to have to pay for those investments.

Howard Shapiro:
I have just a couple of responses. We have to be careful to understand what this sort of waste heat is that we have with these facilities. When we have a power plant that generates electricity, we generate as much possible electricity as we can from that. Although it appears that the waste heat is 2/3 of the energy, it is really in the form of tepid water. It is not that we have vast sources of hot water. It is not cost effective to use. Europe, the Iowa State University Campus and various other places have systems that are designed differently. They do not use all the generating capacity of the steam but they produce hot water or steam at a higher temperature that is used for a different use. We cannot easily take an existing plant and say let's take all that waste heat and use it. It would require that we think about that and integrate that into the design of the facility. That is an investment of a different kind and we need to make sure and clarify it.

Lee Kohl:
I am glad you brought that up. That is very important. I was thinking more in terms of retrofits or some of the changes that are made, like what happened at Cedar Rapids, C Street facility.

Howard Shapiro:
No, that comes in on the re-commissioning of some of these older facilities. We might look at a different type of turbine where we could extract steam and use it in another way locally. Those two uses together are more efficient than doing either of them separately. I just want to make sure we are clear on that point.

There is another point I want to make sure that we are clear on. I would agree with Lisa Davis-Cook that it is not that we don't need capacity, but until we are sure of what we need and how we are going to do it, we should look at all the other alternatives in the meantime. Those are things that can be brought on-line quickly. We can start programs that are more aggressive now that will yield, in a sense, megawatts over the next couple of years. Much faster than we could put a new plant in commission.

David Hurd:
That produces another worry in my mind. If we were to start down the road of energy efficiency and renewable power and four years out we turn up short, we can't then begin to build this new capacity and have it in place four years from now because we haven't started. We need to be just as clear as we can.

Howard Shapiro:
That is why it is still a question in my own mind.

Lee Clancey:
Are there any other questions or comments for the Increasing Supply and Capacity subcommittee? We will keep moving on with the Energy Efficiency/Demand subcommittee.

Roger Amhof:
What we looked at initially was what Iowa has been doing with energy efficiency programs. Monica Stone has provided us with a lot of information. What we have discovered is that over the years, we have spent approximately $38 million per year. We then tried to identify where those savings came from. Much of it is from energy efficiency in residential, or from industrial energy efficiency improvements. Many of these ideas and programs were developed as a result of a study that was done in 1989 which brought us into the idea of thinking of using energy efficiency projects as a possibility for reducing load. What we are trying to determine is what is the real potential for energy efficiency and what could be achieved. We are really having trouble identifying

a snapshot today of where we are compared to where we were 10 years ago when the initial study was done. We think that it might be time for another needs assessment type of study to determine what Iowa has been able to accomplish in the last 10 years since the initial study was completed. That would require a study, a consultant probably. We think that a needs assessment type study is something we need to have done before we are going to be able to identify where are future potential lies.

In the past, we have said we are able to buy kilowatt hours back for 2.5 cents per kWh. We can buy that back in energy efficiency. Can we continue to do that, or have we gotten the cheapest kilowatt-hours and now we are reaching another plateau? We don't have those answers without taking a look at what we have been able to accomplish and what the real potential is that is left out there. We think a needs assessment study will come to pass at some point, but we can't just sit here and say that we need a study before we do anything. We questioned the wisdom of doing energy efficiency programs through the investor-owned utilities. One wonders whether we couldn't find a more efficient way of providing these efficiency programs to the people that we really need to target. I think that it needs to be looked at to see if there is a better way to accomplish the same goal. Get more effort to the end user and more efficiency out of that effort.

We thought about things that could be done in the interim while the study is taking place. One idea was public service announcements to bring the idea of energy efficiency to the forefront. This will hopefully make people aware of the fact that turning off the light switch helps, or that there are more energy efficient devices out there. I think we need to be targeting the small industrial and commercial areas rather than the large industrial areas. I think the large industrial areas generally have people to look at these issues. In small industrial and commercial businesses, these types of issues need to be brought to the attention of the owners or managers.

I personally went back into the study that was given to the Task Force. It is a difficult thing to grasp. This study took the numbers from a study done by the Department of Energy on a nationwide basis and took the numbers that they felt were appropriate and applied them to the Iowa case. In my view, there were some pretty bold assumptions that make some of these numbers questionable in my mind. I don't know if you can achieve 20.3% reasonably. Looking at these numbers I would find it hard to believe this is accurate. I think that further substantiates the need for an assessment study to find out what we really can get out of energy efficiency for the state of Iowa. When this program first began in 1990, we were probably replacing furnaces in residences that were not even 60% efficient. We were replacing those furnaces with 80% efficient furnaces. In the last few years of this program we have been replacing furnaces with 90%+ efficiency. Some of the furnaces we put in are probably 10-15 less efficient than what they could be today. It is a moving target. You never know quite where you are in this energy efficiency scenario.

David Hurd:
I think you have a good point on this marketing by public service announcements.

Lee Clancey:
It shocked me in the last meeting when Larry Bean gave the statistics about if everyone in the state of Iowa had an energy efficient washing machine how much energy it would save. I don't think people are aware of how much energy could be saved on an incremental basis, home by home, throughout the country. We need to find a way to get people the information they need to make decisions in order to become more energy efficient and stress the importance of those decisions.

Lana Ross:
We talked a lot of the residential type of consumers and the need to look at some energy efficiency services in that area. When you look at it household by household it does not have the impact that efficiency in the industrial world does. When you talk about the impact you have for the household, it can have a substantial impact. I probably received information in my utility bill about the service that is available to me if I wanted to have someone come and tell me how to make my house more energy efficient. I don't think I am any different from most people today when those inserts just get thrown away. With the way people's lives are today, we don't take the time to read the information in order to do the things we need to do. I stressed in our subcommittee conversation the difference between marketing and outreach. There is a big difference between getting a piece of paper that describes a program and having a conversation with someone that will explain to you how these particular strategies can help your family. I think there is a huge difference in those two programs.

Lee Clancey:
Or the small business. When we talk about large industrial user, most of them are already doing this.

Roger Amhof:
That is why I question how much more you can squeeze out of the large industries with these dollars. Without knowing what the needs or potentials are in these areas, we could be going in the wrong direction.

Don Wiley:
There are two companies that do retrofits, one for furnaces and the other for construction. Just last week one of our estimators was to a house and they had 2 inches of zone line insulation, which hasn't been used for years. I don't know how many attics have this or how much literature has gone out about this. You can almost get it done for free. In Mount Pleasant we have a municipal utility that provides water and electricity, Alliant Energy provides the gas, we also have an REC around the edge that provides electricity. The REC is getting into some of the industries so you cannot tell which is being served by the municipal and which is being served by the REC. The homeowner has had in the last few years been served by Iowa Southern Utilities who merged with IES which is now Alliant. Half of these homeowners couldn't tell you which gas company they had much less who would give them a rebate. If we go out and explain to them that we can replace that furnace and redo the insulation that is fine, but there is not enough money in there for us to do that service. It may be that it takes three different companies for one little house to really maximize what they can do to be more energy efficient. All of that is just in Mount Pleasant which is a town of fewer than 10,000 people. I think we have over 12 Fortune 500 companies there. Other than the new ones we have built ourselves that we have put in the energy efficient equipment, not one of those companies have done any energy efficiency in heating. They may have done some lighting but not heating. You add those companies up that have approximately 5,000 employees in that small area and think what energy efficiency improvements have not been done. In order to do these projects you would have to go in and do a study for them. I don't think we have even scratched the surface of what is available. It just has to be done a different way.

Kent McLaughlin:
Something else to add on to that, we felt energy efficiency is a much more affordable option than building the new plants. That is why the Increasing Supply & Capacity committee is into what we are talking about. We are talking about this because we feel they really do all come together. Howard Shapiro had mentioned two statements that we have written down here that we will probably go straightforward on which was pursuing energy efficiency and renewables rather than

invest in new power plants until or unless this assessment study is done. We questioned if this was something that the investor-owned utilities wanted to do.

Don Wiley:
Alliant is in the process of holding contractor meetings all over the state. You get good mailings, timely notice, various places you can attend, follow-up calls inquiring if you will be able to attend, and after the meeting you get follow-up materials to do it. I don't know that anyone else could do much better. The only problem is that they are serving only a small part of the market. Some municipals do a good job but some of them don't.

Kent McLaughlin:
We went so far as to suggest the study might even be put together by a group, very similar to what this Task Force looks like, of small business owners, DNR, economic development, IUB and many other areas. We questioned when we met with Monica Stone how long they felt something like this would take. They thought it would be about 1½ years would be the timetable to complete that type of study. They had even put together a projected cost, which was in the $2 million range.

Howard Shapiro:
I don't think the time frame would be that long. We don't need studies on energy efficiency. Floyd Barwig with the Iowa Energy Center and DNR have been doing this work. We know what can be put in place and we know what the economics are. That addresses David Hurd's concern about whether or not we get 4 years down the road and we haven't made other plans. There are things we can do now to reduce demand and they are cost effective. Here is a concrete example. We have a center a Iowa State University that is called the Industrial Assessment Center. It is funded by the Department of Energy. It has been operation since 1991. They do productivity assessments in small- and medium-sized facilities. The audit costs about a $5,000 - $6,000. It is a one to two day affair. As a result of that audit, in place are approximately 6 – 7 implemented changes with less than a 2 year pay back that save those companies $50,000 to $60,000 per year in their utility costs, on average. That is with a cursory audit, yet we get in place those kind of changes. This is simple economics and when confronted with this people make these changes. I don't disagree with the public awareness kind of things, they are beneficial, but there are much more targeted things that work. We simply are not putting in the investment to make them happen because we are assuming the marketplace will take care of itself, but for some reason, it hasn't. I think we can do those quickly. We have a highly sophisticated network of contractors who can do this kind of work today that we didn't have 10 years ago. One of the things we set out to do with the DNR and the Iowa Energy Center was to increase the ability of our technical people in the state to do this kind of work. There are strategies that would not be hard for us to implement that would make a big impact. The 20% figure is not unrealistic in my opinion.

Kent McLaughlin:
I think you answered the question when we asked; what will the market place do on its own? Until they are shown what needs to be changed it won't be changed. That is where the education could be done initially, whether it be through public services announcements or another way. I would agree with your notion that there are many things we need to do right now. What will the offsetting reduction be to the needed capacity and demand if we could implement these efficiency right now? We didn't have that answer to the question; even if we do those things, will we need to add an addition to a school or build a new bigger one? That is where the thought of having a study done came from.

Roger Amhof:
We also talked about the fact that the high energy costs this year may have done people a favor in that they have now put an awareness on the front burner for people. When they see their heating

bills double, they start thinking of efficiency, turning thermostats down, and doing things they would not normally do. It may not continue but I think we will see in the next year or two an increased amount of voluntary compliance in upgrading some of the more inefficient furnaces and appliances out there then we would have had if gas had stayed at $2.25.

Joyce Mercier:
I really think that energy efficiency and reaching the people to let them know what kinds of things they can do is important. I am remembering back to the 1970s when there were incentives for us to upgrade our furnaces and put in insulation. I think that would be extremely helpful. I think we also need to look at the building codes and see that there are increased standards for some of these kind of things, not only on residential homes, but on public buildings as well. I think we have many public buildings that are so poorly insulated. We need to look at these kind of things. I know that in the 1970s our kilowatt hour usage went way down because of some of the things we did. I think this is something we really need to think about. It is not only big industry; it is the small businesses and homes as well. When I look at the low-income materials that we studied for Jerry McKim and the kind of things they are doing with the poor; I know there are so many things that a person can do that we are not thinking about right now. This may be a wake up call for us.

David Hurd:
I was told last week that the Iowa Finance Authority does not have any energy efficiency standards when it loans money on housing projects. You wonder how many other examples of things like that there are.

Don Wiley:
Any new home in the state of Iowa that is getting a building permit, according to state regulations. A contractor has to fill out an energy assessment survey. I would say that 99.9% get put in the folder at the local city hall. It doesn't take long to know what you have to have at the bottom line. Nobody understands the form so it is not doing any good. There is a form in place that probably is not utilized.

The difference between residential and industrial, especially in Iowa, is that we are seeing many new plants that are not locally owned. We were working on one that did not go. It had 20 dock doors. They did not install electric door openers and they redrew the floor plan and put them on the northwest corner of the building. The reasoning for this was the proximity to the highway, less pavement they would have to pour for the semis coming in and out. They would much rather pay a higher heating bill than to pay the cost of having the pavement poured. They were not planning on being at that location for very long. Economic Development in Iowa was working to bring them to Iowa versus two other states so it is a little difficult for them to start mandating something that they are not going to mandate in Kentucky. It defies imagination that they would do that, but that is what they are looking at the bottom line. It is difficult to make some of these mandates or there will be other costs and not achieving some of it. I think there were 60 jobs in that plant.

George VanDamme:
The higher gas prices have indeed raised awareness. MidAmerican has a request before the Iowa Utilities Board now to exceed their budget for energy efficiency funding because they have so many audit requests from residential customers. Some people do know about the program. MidAmerican has used their money and don't want to be penalized for overshooting their budget so they are asking for approval to do it. I assume they will get it.

Alliant is changing their program to have a provision where if the projected savings don't meet expectations the company will get the money anyway. They are trying to make their program more aggressive also.

John Deere has hired an energy service provider that will do all this for us. They will supply all the money and do it. John Deere has a problem with this because they already have their own money and why should they pay someone else to do it. Those kind of services are perfect for government buildings and school buildings. There may be some legal things of entering into this kind of agreement. They will do the energy audit, provide the capital and lease it to the companies and use a substantial portion of the savings to pay back the capital costs, but it is always a positive cash flow for the customer. There is more money going in because they still get some savings in the money and they get infrastructure improvements. Those things are important for everyone to take advantage of.

Howard Shapiro:
I think that example brings home what opportunity there is for increased efficiency. Why can somebody go into business and make money guaranteeing savings to a John Deere? There is opportunity there. If it wasn't there, they couldn't do it. Another point is wouldn't John Deere be better off doing it themselves instead of paying someone else to do it? That is a business decision because you have to decide whether you want to spend the money for them to do it or do you want to do it yourself.

Lee Clancey:
There are two issues there. Do you have the capital to front the costs? Do you have the people resources that would allow you to do that? Most smaller companies don't.

Howard Shapiro:
That is exactly right, but the opportunity is there.

Lana Ross:
I used to own a restaurant and we had somebody come in and help us look at some efficiency things. Some of the strategies we could do because they were not that expensive. Some of the others there was no way we could have done because it was not economically feasible. We were just a small, independent family-owned business. We couldn't do a lot of the suggestions they made because we just didn't have the cash flow to do it.

Lee Kohl:
I talked to both utilities about this issue. In July, they had very little interest shown in the audits. Now the bookings for the energy audits are way out into the future. Now the utilities are wishing they had more people to do these energy audits. It is kind of driven by the climate out there. I think that there are places that the market will serve and places that the market will not serve. It is key for your group to encourage the servicing of areas that it can like George VanDamme was talking about. Then there are certain places where it is not economically feasible for them to come into a residential area and have the kind of impact. Reaching out to those residential customers is a big goal. We have to find a more effective way to get into those markets. There was a conversation earlier about building codes. I would like to see if that would work, but I already know how many building code laws we don't enforce now. Unless someone comes up with a way to enforce the kind of standards we come up with, they won't mean anything if we don't put enforcement measures in place. We see this all the time in the utility industry in both construction, service and replacement. Standards don't mean anything unless somebody is there to enforce them.

John Sellers:
One section that has not been discussed is agriculture. I know all I have to do is look at my own farm operation and my neighbors and I see so many efficiency things. I personally think I am on

one of the best RECs you could have with Chariton Valley REC. My next door neighbor is on Alliant. Two miles down the road is another REC. Our service rates are all different. The outreach has to be horrendous for all these utilities. I agree with Roger Amhof on taking this whole efficiency package and putting it with the DNR rather than having the RECs, IOUs, and municipals all doing their own thing. Yes, there will have to be a little different formulas for the RECs, IOUs and municipals because of the density, miles of line and all of these types of things. I would just as soon have some professional, disinterested third party that is accountable on a state level, rather than have someone that is directly in the utility business putting out this efficiency information.

George VanDamme:
The utilities are watched closely by the Iowa Utilities Board. That is part of why Alliant is doing what it's doing. They have a more aggressive program because the Interstate Power Company portion of it wasn't spending money and they wanted to roll it back and the regulators said no, you have to be more aggressive. The customer outreach is another thing. The Department of Natural Resources doesn't have it. There will be a lot of costs being taken out of the state coffers in doing this work. I guess they can get provisions to get inserts with utility bills but at least the customers get a bill every month with telephone number on it of who to call.

Roger Amhof:
I want to clarify one thing that was said. We were not recommending that this has to happen. We simply said we need to take a look at it. I was not recommending we put it into the hands of the Iowa Utilities Board, Department of Natural Resources or anybody else.

Lee Clancey:
I think we need to bring this particular discussion to a close. If we have time, we can certainly come back to it. We need to start condensing this down to a set of recommendations we can make.

I don't know about anyone else, but I am feeling so much better about what this Task Force is doing. I think by dividing into these subcommittees we are able to focus more on the individual areas we have heard about for the last few months. I am feeling very good about the work that everybody is doing and hope you feel the same. In addition, the fact that we are looking long-term is really where I think we ought to be going and not having the knee jerk reaction we are hearing about in other places to the issues that we are facing. We do need to take that long view.

Let's go on to the report from the Renewable Energy/Environment committee.

John Sellers:
Our discussions have mainly centered around renewables. We feel that we would like to see a renewable portfolio standard. The standard possibly being 10% by 2010 and up to 15% by 2020. We feel there is some potential in hydroelectric power. In seeing the one slide of western Nebraska had a lot more potential in solar but I think it still needs to be looked at in Iowa. The problem that we have all heard with wind is that when it is the hottest the wind isn't blowing, but the sun is shining. A real possibility for some of the peak times is to take a look at solar. Accessibility and net metering are very important considerations to the renewable side of things. We haven't really looked at the environment because so many of those questions fall into the externalities when you get into the coal and natural gas power. Those are policy decisions that our subcommittee did not feel ready to address. We have had presentations on some of the benefits of biomass as to the benefits to the environment in Iowa but it is very hard to address when it comes to comparing with the coal and natural gas.

David Hurd:
On the renewable portfolio standard issue, did you talk about to whom that would apply?

Kevin Eekhoff:
In the state of Minnesota, they passed a law in 1994 requiring their energy companies to build or purchase 425 megawatts of wind and 125 megawatts of biomass by 2002 then an additional 400 megawatts of wind by 2012. Maybe that is something the Legislature can look at and put in place in the state of Iowa

I am a little biased on wind I guess. I am from Northwest Iowa where there is a wind farm and I also live in the Akron-Westfield Community School District which put in a wind generator in January of 1999. They estimated that it saves the school between $50,000 and $60,000 a year in energy costs. I think Spirit Lake also has a wind generator on line, which was built in 1993. It saves them $20,000 to $25,000 a year. They are looking at putting in another wind generator there in the near future. We were given a presentation from Waverly Light and Power who own two of the wind generators that are up in northwest Iowa. They wanted to build two or three more but couldn't do it because they were unable to obtain approval to do that. As Bill Leighty said, "we are the Saudi Arabia of wind in this area." We need to take advantage of that wind if we can.

Lee Clancey:
I think David Hurd's question was are you asking just the investor-owned utilities to have this as a part of their portfolio or are you asking all providers of electricity to have this as part of their portfolio?

Kevin Eekhoff:
I think we should try and do it for all electric providers.

George VanDamme:
Why do we need a renewable portfolio standard when Florida Power & Light is coming in and building them voluntarily? Who didn't give approval for the wind generators?

Kevin Eekhoff:
I think Glenn Cannon, with Waverly Light & Power mentioned that they tried to put an additional two wind turbines up in the northwest Iowa wind farm and couldn't get approval. I don't know where all that electricity goes…

Lee Clancey:
I thought that was due to transmission capacity.

Kevin Eekhoff:
It was due to transmission. That is going to be a big factor.

George VanDamme:
So it's a transmission constraint. You could put 1,000 wind turbines up there and you couldn't move the power. We would have to put wires in to do it or move them some place else. Fundamentally, I have a problem with renewable portfolio standards because they are extremely expensive. For John Deere, the 2% that is in there now cost us a 3% increase in the electric rates. We are paying anywhere between $700,000 to $900,000 a year extra for that. All the other customers are too.

John Sellers:
If that is biomass and it is John Deere equipment that is going out the other side to harvest it, you are getting something out of it.

George VanDamme:
That is a good idea but Kevin Eekhoff is talking about wind turbines. Biomass is better because we can do the equipment but it is also dispatchable. There is a high likelihood that a biomass plant will run when the system peak is. The wind machines, through the years, only run 30% or the time.

David Hurd:
Part of the question we have to grapple with here is short-term versus long-term. Put in a renewable portfolio standard and if you collect the money to enforce it through the rates. OK that is a disadvantage in the short-range for the cost, but you have to weigh that against what you gain by having your renewable power going forward and is a desirable objective. I don't know if you can believe solely in a set of numbers on a sheet or whether you have to think about values that don't so easily translate into dollars. My impression is that one of the reasons that Iowa got to the 2% we are at now is that we had a standard that had to be enforced. We are ahead of other states because we had that standard.

George VanDamme:
I agree with that. The standard is forcing it. Wouldn't it be better to give somebody an economic incentive to do it rather than mandating it because then it puts it into a competitive position? If we say, you have to put 10% in regardless of the price somebody will put 10% in. If you give them a tax credit, fuel adjustment charge to balance it against gas fired generation or something else. Make it a competitive opportunity for the incumbent utilities and the independent power producers. My concern is that mandates are mandates. We have to follow them regardless of the costs. There really doesn't have to be competition for anyone building the things.

Howard Shapiro:
I would like to take a look at that another way. These are all investments whether they are investments made privately or they are investments that come through incentives in public programs. They are still investments. The question is; what is the return on the investment? I don't think we should subsidize some renewable types of things more than, for example, energy efficiency type of things if the economics aren't better to put it in the other direction. I think that is a consideration. We should remember that several of those people that talked to us said that all those wind turbines would stop turning if there had not been some tax incentives in place. We should not just talk about that the district or city that saved $60,000 a year. We should remember that part of the economics are that those $60,000 went there, but somebody else has also got an incentive that has got to be figured in the mix. All these things need to be dealt with on a common ground if we are going to decide what it is we want to emphasize.

Kent McLaughlin:
Do we know what the return on that wind turbine is?

Kevin Eekhoff:
No, I don't. I do know that there is a federal energy credit, which I believe is 1.2 cents per kilowatt-hour that it produces that goes back to the school. That is part of the incentive to build the wind turbine, but if you quit that incentive, it is going to cut into the profits. I don't know what those are at this point.

David Hurd:
What this discussion brings to my mind is the theoretical possibility that you set a goal rather than a requirement of the 10% by 2010, the 15% by 2020. Then construct some incentives that will reach the goal and then set a point farther out to check whether the incentives are producing the actions needed to meet the goal. If they aren't you could restructure in some fashion. I don't think you could go on a goal basis without a requirement and wait until 2010 to find out whether you got there or not. You may be way short on your goal.

Kevin Eekhoff:
Another one of the incentives, at least for the project in Akron-Westfield, was the financing. They had a $250,000, 0% interest loan you could apply for and Akron happened to get $150,000 of that. This is spread out over 10-20 years. This is also an incentive they took advantage of.

Joyce Mercier:
I think it is important to set some reasonable type of goals and figure out how we are going to reach those goals. One way is mandated, the other is incentive. Then check in a few years to see if we are reaching it. I don't think we have to mandate that or that we even agreed that mandating is what we wanted to do. We just think it should be higher than the 2% that it is now. We should look into the future and try to raise this goal in order to have more energy.

Kevin Eekhoff:
On this information sheet, they are talking about 7% by 2008 and 10% by 2010. I don't know if that was a goal or a mandate.

Roger Amhof:
On wind energy when you say 2% is that nameplate capacity or is that real life capacity? If it has a load factor of 33%, it means it is working 1/3 of the time. Are we talking about the nameplate capacity of the wind turbine is as far as total percentage of kilowatt hours it produces, or are we talking about in reality how many kilowatt hours it actually produces?

David Hurd:
Do you mean like if this a 1 kilowatt wind turbine and it operates 40% of time is it 4/10 of a kilowatt or is it one kilowatt?

Roger Amhof:
Right, how are we rated? What are we talking about in terms of that?

David Hurd:
It must be rated the same way that we are rating total usage to get a properly calculated percentage.

Lee Kohl:
It is currently kWh.

Roger Amhof:
So it is actual generated kWh not nameplate capacity.

Howard Shapiro:
All the economics are based on that because that is the only way to figure out what you are going to benefit from.

Don Wiley:
When we started out David Hurd made a comment about looking at generalities we wanted to talk about. Maybe as we worked down those, some of those might be eliminated or could be sophisticated. We talked about the need to diversify the sources of our power. One of those could be renewables. We have come down the road a little bit about what the percentages would be there. George VanDamme's concern on cost may vary in 5 years. What constraints are there to that? What if we can increase our transmission lines and avoid some of the pancaking? If we see inflation in other prices of natural gas and shortages all of a sudden, our differences may be quite different than what they are right now. I think that is a very reasonable goal to have. We have to start with some percentage of goals out there, but it would take a little while for us to work down there. There would have to be a monitoring of those over a period of time.

Joyce Mercier:
We talked about wind a lot but John Sellers mentioned hydropower, which we have not discussed much here. I did some looking into that area. I know there was a project in the 1980s with Red Rock reservoir that did not go. The Corp of Engineers has a report on that project I am going to try and get of copy of. We have many low-head dams in the state. Many were damaged in the 1993 floods and have not been repaired and brought back up to code in order to work correctly. This may be an area we want to do a little more research into in order to find out what it might take to bring them up to code and new generators for them instead of the old one. That is a power that we know how to use, we know it is clean. If the dams are already in place maybe we could work with what we have in order to get the power out of them.

David Hurd:
Sharon Tahtinen will be getting a report for us within the next few days on this. The DNR has a great deal on information on this as to the dams that are in operation, those that have been taken out of service and where new dams could be placed. My impression is that the aggregate amount of power for all these put together is going to be very tiny in relation to our needs.

Joyce Mercier:
It says in the DNR's Renewable Resource Guide that 3% of the power in Iowa comes from hydropower. Hydropower makes up nearly 3% of Iowa's total electrical production. Representing the state's greatest renewable resource for electricity.

Unknown Audience Attendee:
This probably comes from the Missouri River Basin large hydro-dams is probably what is making up that 3% hydro number. Most of that is with municipals and co-ops.

Lee Clancey:
We have a dam in Cedar Rapids that was not in use for a long period of time and we brought it back into use 4 years ago. It is generating enough capacity to help pay the city buildings' electric bill. It doesn't generate as much as you think. Maintenance on the those dams is pretty high also.

David Hurd:
We will take a look at the data we will get within the next few days and then we can ask more questions.

Roger Amhof:
George you may remember that the City of LeClaire had a vision of building a dam across the Mississippi River. They had done some work on that for a number of years but nothing every came of it. I don't know whether that was a regulatory problem that they couldn't get passed or what happened.

George VanDamme:
There was probably some regulatory or state conflict. The City of LeClaire wanted to build a hydro park and virtually all the actual generators would have been placed on the Illinois side of the river. Illinois would have to deal with all the construction then have the wire run to Iowa. There were some territorial problems there I think. I think it depended on getting 6 cents a kWh out of it too.

John Sellers:
I would like us to consider that we could monitor the increase but also have a sliding mandate behind it so that it could be used.

Lee Kohl:
I think a hybrid approach is probably going to be the most effective. George VanDamme makes some good points as far as incentives go and how you are going to pull things into this market. As far as wind goes, it is not as much about transmission as it is about the federal research dollars. The research dollars are bringing the price of wind down. The competitive investment that you want to make into that is important but if you don't have the ability to deliver that to the market it isn't going to matter. Low-head hydro is like a lot of renewable energies. It is good in niche locations where it can really be cost effective but where the investment costs become too much it is not going to be the right way to go. I come out of the defense industry. Government made a lot of huge investments in that industry and the private sector has received the benefits from that. Energy is one of those same kind of things that you have to balance where it is you are going to enter into the mix of the market and where you are not. There are times when it is imprudent to have state/federal money pushing the technology and there are times it is not. I am not saying I know what those things are but I just think that is part of the problem this Task Force has to figure out is where the balance is. When it is prudent to push those technologies and when it is not.

Lee Clancey:
I think the same holds true to figuring out when to have a mandate and when to have an incentive.

Howard Shapiro:
I think we also have to understand that there is a scientific hierarchy here that is not going to be based solely on these incentives. Low-head hydro needs two things to produce power from water. You need elevation difference and you need flow. If you have low-head hydro you better have big flow. If you have ever been to Hoover Dam you know why when both those things come together that it makes perfect sense. I would like to put solar in the same category. The extent to which using solar energy for appropriate purposes that are passive and that are already things that we can build into the design is going to be more cost effective then photovoltaic electric production. We have to really think about where do we want to put these incentives to get the most short-term and long-term gain. We can't repeal the 2nd law of thermodynamics by legislation.

Lana Ross:
I have one question for George VanDamme. Did you say you were doing 2% renewable energy?

George VanDamme:
The state of Iowa is. You are too. No one knows what the cost is yet. It is virtually all wind. There needs to be different levels of incentives for biomass, at least initially, because biomass has extra transportation costs. Although it may have to be moved, it is a higher value product because you can count on it being there.

Lee Kohl:
I think that is very important. Every part of that is going to require a greater initial investment. From research to having John Deere create a product to harvest is going to have a different front end investment. I think it is important to look at that and determine the best way to get the results you are after but at the same time I think it is important to remember the fuel mix.

David Hurd:
OK, let's move on to the Transmission & Infrastructure/Relationship with Neighboring States subcommittee.

Lee Clancey:
Brenda Dryer couldn't be here this afternoon and Sandy Opstvedt had to leave to go home. Lee did sit in on our meeting this morning and Brenda was available via conference call. I am going to try and summarize our discussion. Prior to meeting this morning, each of us contacted various people to try and figure out what particular issues this subcommittee needed to take a look at. I had talked with Eliot Protsch from Alliant and Bob Flanders from the Federal Energy Regulatory Commission who is an attorney in their legislative branch. It was interesting talking with Bob Flanders. What he was saying about transmission systems is that FERC would like for states to try to get all interstate transmission systems to form regional transmission organizations. They believe that the operational benefits of scale to be realized through a common grid manager and power markets as well as power systems would be substantial. It would also eliminate the pancaking of rates which we have heard a lot about. The challenges to do this mostly have to do with the municipal utilities. The municipal utilities are constrained from participating in regional transmission organizations due to their tax status or to their organizing legislation. These issues need to be worked out at the state level as to how to integrate these stand-alone utilities into a regional transmission organization. Lee Kohl shared some information with us this morning on that issue that I think he will be willing to share with everybody.

There is some talk of federal legislation that would allow FERC or another federal entity, transmission sighting authority with the possibility of eminent domain capability but that is a huge if the feds would be the final arbiter because of the interstate commerce nature of transmission. This is only in the talking stages and not anything we can depend upon. The reason they are taking a look at that is with natural gas is that the federal government does have eminent domain authority to site natural gas lines. For example, in southeast Iowa in Keokuk County, Alliant has been trying to site a 161-kilovolt line, and they have gone through three separate locations for this line. Each location takes years. This is a very difficult situation when you don't have eminent domain authority for transmission lines.

Reliability standards are also an issue. There is fear that utilities will not have the same incentives to follow reliability standards if regional transmission organizations are formed so that must be part of the negotiating that takes place when they are formed. I asked him what it was states ought to be doing in order to create a transmission system nationwide that is reliable and adequate to meet our need. Number one is that states need to collaborate with utilities to create regional transmission organizations. The state must buy-in to the concept of a regional transmission system. They must deal with the municipals and how to allow for their participation in terms of any kind of negative cost impact, tax status, organizing legislation or ownership. The second thing is that the state needs to conduct adequacy planning for new generation and transmission capacity. There was some discussion earlier about how in California the market failed. He stated that also, that in California there was too much faith in the market and the market failed them. We need to ask questions like; what are Iowa's long-range power needs? Can or will the market meet those needs? Don't blindly hand over the planning functions to the market. The North American

Reliability Council has the 10-year study on states in this region and their future needs. He also suggested that we look at the Western Governor's Association web site for additional information on power issues with links to other sites. The best rule for a state government is to take a longer-range view. Lastly, he said that a transmission strategy in a state like Iowa is a great one, but there are tradeoffs. Local generation is necessary for the rare times that lines go down but because of our geographic location between a lot of different major urban areas if we have a strong vibrant transmission system we can pull power off the lines as it goes through Iowa rather than spend lots of money on new generation. That was also said by a number of other people I talked to including Eliot Protsch. Our transmission system today is adequate. It needs some upgrading and expansion. In order for us a be a real player in this field, we need to have a state policy that makes it so that we can have the type of vibrant transmission system that will allow us to transmit power on an interstate basis. We had some discussion this morning on when these regional transmission organizations are developed one of the most sensitive issues is that of how to deal with the workers that are involved. There must be rules in place that take care of and provide a safety net for customers and workers as this transition takes place. It is imperative that there be an intrastate sharing of information when we begin to develop this regional transmission organization. We need to encourage the state to take a leadership role with all the stakeholders in this and surrounding states to get these regional transmission organizations formed. The other issue that came up was as with many other industries there is a serious workforce issue with regard to the whole transmission system. Journeyman programs have been dropped. They are not able to get people into the program at the front end and they are losing people on the back end with retirements faster than they are being replaced. Sandy Opstvedt shared with us that there have been 27 openings throughout the summer and they are only getting one or two inquiries when they are sending out job notices throughout the country. I am going to turn that part of the discussion over to Lee Kohl. This may well be the biggest issue the state has to address in terms of long-term policy.

Don Wiley:
That is probably the biggest issue and probably one that we can affect the most. We are in a good position there. In reviewing all the previous presentations given to us, the presenters all had a sentence which stated that the generation of energy is only as good as our ability to transport it economically. Jeff Ghilardi said that transmission has been a constraint on every major project he has been involved in. This is a concern about MAPP, MISO or MAIN or what the eventual system will be and how strong it would be. It is also going to take some time for FERC to do anything. There has to be some assurances to the people who now own the transmission grids that we have to consider new construction and they are not going to see their investments taken over. We have to work with them in the meantime until we get our system up and going. I think one thing that I have heard form everyone is that we have the opportunity in Iowa to begin the process. We don't have to wait for a regional planning entity to take the action for us. The more that we form our own regional entity the better voice we are going to have as the federal government takes over. I have no doubt they will do that. I think it is important that we set the initial steps.

Lee Clancey:
I found it interesting that Eliot Protsch said that the concept of transmission regulations are rooted in the interstate commerce clause of the Constitution due to the simple fact that the electrons on the grid do not respect state lines. Regulation of the wholesale industry should be in the province of the federal government rather than the states. Just as we have a federal highway system the same is true of our transmission system. It is imperative that we have a national policy that is assisted by good state policy.

Don Wiley:
Every one of our big companies in Iowa have distribution centers. They establish those distribution centers in counties of where their markets are; where there stores are; and also where the transportation is to those stores. They don't go to some town that is giving them a lot of tax incentives but doesn't have highway system to get them out. That is the opportunity we have is to provide the transportation to the market.

Lee Kohl:
There are a few more things I want to add. This is a FERC oversight area. No matter what you do the federal government can step in and change what is going to go on in this, the important thing is that I am not sure that we should wait for FERC to decide exactly what it is they are going to do. They are not going to come in a tear down any transmission lines that are built. The grid didn't develop like the national highway system or the natural gas pipeline system. It didn't have a master plan. We are all paying a price for that long term. To move power you have to have the system in place. If we are every going to develop any kind of a market, you are going to have to have the system in place. Some of the problems we are seeing with regional transmission organizations from a worker's perspective is that we are seeing some of the for-profit entities, which are there to resolve a problem of a reliability, end up creating more of a problem in reliability because they reduce the cost factors that lead to cost cutting measures. Rather than repairing the problems that have been created, they exacerbate those problems. Some of the transmission that comes into western Iowa was put up to move electrons from western energy hydro sources and a lot of the system design and the way it was put together is not the way our commerce and state has grown. We need to take look at what energy we have and where we want to move it before we can come up with a plan. That plan has to be regional. We need to reach out to the states around us. We have constraints with everybody. The state we have the least constraints with is Illinois and that is simply because of the close partnership and the fact that the utilities here now used to operate there. Even now Alliant is having problems in doing a line over into Illinois which you would think would be one of the easiest things let alone that there hasn't been a real need or desire to interconnect with these other states. To have a long-range vision we need to pull that region together. The worker issue is very key in terms of that we have suffered in this nation, a huge crisis in the utility industry in terms of numbers and preparation for competition. Many companies cut way back on the number of workers. The way they did this was by offering early retirements and severance packages to their older workforce to move them out. This is one of the ways we negotiated to try to make it a little softer landing for the huge reductions that have gone on. The national average of reduction in the utility industry is 27% over the last 7 years. At the same time we have not had an infusion of new workers. There is a rob Peter to pay Paul mentality in the electric industry. Whenever a hot spot that happens like Chicago last summer, the Iowa workers look at the $28 an hour here and the $45 an hour they can make over in Illinois and they pack up and they travel. Much more the utility work has become the travel style work. You don't base out of a location or a region; you work out on the road. What happens is that more of the utilities and crises that occur are being addressed by these traveling organizations. Because of this, the entire infrastructure of the work environment has been stretched thin. The ice storms in Arkansas and Oklahoma pulled a huge number of utility workers out of the Midwest and Canada. Had the same situation happened within 10 days in any other part of the region, we would have had a long-term disaster. We would not have been able to react to it because we simply did not have the personnel.

Getting people into the profession is also very difficult. Utility companies no longer do the kind of training they used to. It is a very difficult business to recruit into. We are going to have to look at ways of attracting new workers into this industry. It is about a four-year process to bring a lineman up to speed. It is a high fall out rate process. It is not easy work to do.

In helping Sandy Opstvedt prepare for this subcommittee meeting, we pulled the most recent transmission map the Utility Board had, which was from 1984. They are working on updating the information. This brings to light a problem that there is not a whole lot of information being gathered. The information that is there is not a matter of public record. It is industry specific and it is a very guarded aspect. The best information we received is from the MAIN reliability area.

Another issue of transmission is power quality and the affects that the quality of power has on everything that we use. The life and longevity of all of our electrical appliances is dramatically affected by power quality and we don't measure it. I know George VanDamme measures it at John Deere because his capital investment is such that if he doesn't, it has a dramatic impact on his business.

George VanDamme:
The Midwest is in a weird position. Alliant did join MISO. I am not sure why MidAmerican has not joined MISO or any other regional transmission authority. Unless FERC does something soon to keep Commonwealth-Edison, Illinois Power in MISO, MISO will end within 6 months. They are not even able to borrow capital now because the big powers are gone. If they leave, MISO will have a big hole in it. You have a MISO and Alliance RTO that goes way down south. If the Alliance one prevails, it is set up to move electrons to the east not the west. That is the focus of the key players. The idea is to move the electron from the shores of the Mississippi to out east. We need to ask if the Iowa utilities, including the consumer-owned, should they join an RTO. Illinois restructuring law also says a peculiar thing, it mandates that they join an independent system operator, but it doesn't say they have to be a member of one. So they could join then drop out.

Howard Shapiro:
In talking about all the transmission issues and I think you have laid out clearly what we have heard from the people who have talked with us as well as some of the research you have done for today's presentation. An issue I wonder about is if there is a Not In My Back Yard (NIMBY) environment in which it is difficult to build them even if we wanted to build them? Is that one of the issues that we have to address?

Lee Clancey:
Yes, that is the eminent domain issue. What they are saying is the either the state needs to change their siting regulations or the federal government needs to take over siting authority to allow eminent domain authority to be imposed. Otherwise, they have to beg, borrow and steal wherever they can get land to do these. The NIMBY attitude is very significant when it comes to siting issues.

Howard Shapiro:
The question in mind my mind is; is that because we can't build them? Or is that we haven't tried? Or is it a combination of both?

Lee Clancey:
I think it is a little of both. Alliant has been trying to building this big line and they have had to go through three separate routes because they cannot get the right-of-way.

Lee Kohl:
The projection in the book that the Iowa Utilities Board produced for this Task Force that particular line is predicted to be on line in 2003. There is no possible way this can happen. This is the problem in general with a lot of lines that are planned and go through this process. I want to reiterate again how important it is that the Task Force move forward on this issue because it is the

key to everything else. I started looking into line laws and some other issues. I can tell you that some of the RECs are very forward thinking on this. They have put in very precise plans to make sure that they re-institute new equipment and do upgrades. When we got that booklet, we found lines that we could not find anyone in our organization that had worked on them in 30 years. We had to ask ourselves; where are these lines? We work all over the state. Where do these lines exist? Some of the poles and wires information that was contained in that report was very shocking to us. I am glad to see poles last that long but a prudent maintenance policy will fix it when it blows down.

Lee Clancey:
That was one of the issues that was brought to my attention when they were talking about the siting of transmission lines was that the federal government is never involved in these cases even though it is even in the best interest of the entire region to have new lines built. The state is only involved when there are complaints. It is entirely up to whoever is trying to develop these lines to get them built. It is very difficult.

Don Wiley:
Even if they are successful, by the time they go through all the courts it can take 5–10 years to get permission to do it when it was going to happen in the first place.

Lee Clancey:
If the state had a very strong policy to make this transmission system coming through the state, the kind that is going to be a regional carrier, then I think it would help.

George VanDamme:
Have you had a chance to attend a regional meeting of these types of groups yet?

Lee Clancey:
No.

Don Wiley:
We asked John Norris last time if he could explore that with the other states through the Governor's office. I haven't heard anything on how that worked out.

David Hurd:
That has been done. There is agreement that each state is going to assign a staff person to start coordinating an energy policy. That is a rather slim statement but at least we have some movement.

Don Wiley:
I think one person from each state and a representative from the utility companies involved is a step forward. That is a gathering of the key players and then you go forward from there. I haven't heard of that happening at this point.

David Hurd:
I would think that we would be able to feed directly into that discussion through whoever the Iowa representative is going to be.

Lee Kohl:
Wisconsin when they passed a reliability act they said in their state statute that they would interface with any state that would interface with them. Iowa's interface with Wisconsin isn't good in terms of areas we could make direct improvement with. Two utilities up there, one Wisconsin

based, one Minnesota based, immediately got together a transmission plan for a transmission line across from Minneapolis over into Wisconsin. They took this plan to MAPP and got their blessing. Now they have started work on the line. It took them 6 months to get this up and going once the Reliability Act was passed in the state of Wisconsin

Howard Shapiro:
Something I don't understand about all this is that one of our major utility companies is Wisconsin based. Did they see that the border between Wisconsin and Iowa is somehow a barrier to them to do business? Wouldn't they naturally think about that to serve their own customers?

Lee Kohl:
I cannot comment as to what Alliant Energy is thinking. I know they made it clear to the Iowa Utilities Board that a line that had been planned to go across a right-of-way from Iowa to Wisconsin that had been talked about for a great number of years was no longer going to be in their plans.

Howard Shapiro:
I am just suggesting that we have set up arbitrary barriers to trade, as evidenced by a company that does business in both states is having that trouble.

John Sellers:
We need to have the courage to step in as a state and become a region rather than having these regional IOUs controlling everything.

Lee Clancey:
David and I were just talking about what we need to do for our next meeting. It would be, I think, in the best interest of the Task Force as a whole if the subcommittees would be willing to take the information they have gathered and heard here today to go back and begin to draft some recommendations based on what you have so far. I know the Transmission & Infrastructure/Regulations/Relationship with Neighboring States subcommittee is going to meet with and engineer for MidAmerican to take a look at a transmission map that they have and determine how that will play in any recommendations we have. If you could start to think about what those recommendations might look like coming out of your subcommittee, pull something together that David and I could look at and e-mail it to everyone prior to the next meeting. That way we would have it and be able to start thinking about before the next meeting.

David Hurd:
I would suggest that we be as brief as we possibly can in a series of points from the most general to the degree you can see your way into more specific steps. The thought would be to send that out to all Task Force members, have the meeting and maybe we could agree on some of it. If we do then we will have our starting base of policy in which to build as we go along.

Lee Clancey:
Are there any speakers you can think of that we haven't heard from? Are there any issues or information that anyone in still in need of that we can get a speaker for?

David Hurd:
John Norris had made a suggestion that we get a person who could talk about the Iowa deregulation effort from the other side. So I contacted David Osterberg and he said he would be willing to speak with us and would like to comment about the deregulation in some of the other states.

Lee Kohl:
The IBEW conference has talked about seeking an audience with this Task Force to give you the worker's perspective from this industry and our involvement throughout the course of the past few years and our perspective. I think we have a unique perspective because we share goals with both sides here that were in the deregulation fight. Workers who work in the industry and as well as consumers out there. We constantly have to work to balance the needs of both those constituent groups. That puts us in a unique position.

Lee Clancey:
Are there any other issues? OK, we need to set a date for the next two meetings.

TASK FORCE DISCUSSION:
Thursday, March 15, 12:00 p.m. to 4:00 p.m.
Tuesday, April 3, 12:00 p.m. to 4:00 p.m.

David Hurd:
Between now and then we want draft policy recommendations from each subcommittee to be sent to the whole Task Force. Please send these a few days in advance of the meeting so we can read them. Before we adjourn, John Burnquist will give us an update on LIHEAP.

John Burnquist:
House Senate File 65 passed through the legislature and was signed by the Governor providing $10.5 million state dollars for the energy assistance program. That bring us up to about $52 million total funding for LIHEAP. I think Jerry McKim mentioned in the last Task Force meeting that we were projecting about 75,000 being served. That was based the October through December projections of a 20% increase. From January this year as compared to January last year, there has been a 35% increase in applications. We are bumping up our estimates to 80,000 households. With this new money, of which $6.5 is state funds the other $4 million is diverted LIHEAP dollars from administrative, weatherization line items, we expect to serve an average benefit of $535 per household. The Task Force received a copy of an article in the New York Times that appeared last week on Iowa natural gas that talks about the propane problem here in our state. There was an error in our copies so I will make sure that everyone gets a good copy.

MEETING ADJOURNED 3:20 PM